



IN THE CANADIAN PATENT OFFICE

Application No.: 2,307,153  
Title: LIGHT FIXTURE MANAGEMENT SYSTEM  
Applicant: JEFFERY, Clark R.  
Filed: April 28, 2000

**AFFIDAVIT OF GEORGES CORBEIL**  
**(affirmed June 14, 2004)**

I, Georges Corbeil, of the City of Toronto, in the Province of Ontario,  
AFFIRM THAT:

1. I am the Operations Manager at Sun Life Assurance Company of Canada, a position I have held since 2002. My responsibilities as Operations Manager include overseeing the maintenance of fixtures and equipment at 150 King Street West in Toronto, Ontario. In addition to my position at Sun Life Assurance Company of Canada, I have worked in the field of property management for 38 years, and have had similar responsibilities at my previous places of employment, which include several types of facilities ranging from hospitals to school boards to government and commercial institutions. As such, I have personal knowledge of the facts to which I hereinafter depose, except where I indicate that my knowledge is based on information and belief, in which case I have indicated the source of my knowledge.

2. I have been asked by Mr. Clark Jeffery, who I understand is the named inventor in Canadian Patent Application No. 2,307,153, to discuss my knowledge and experience as it relates to the maintenance of lighting and other building fixtures.

3. Part of the role of an operations manager of a commercial building is to ensure that the structure and the fixtures, including light fixtures, of the building are maintained in a state of good repair. In the context of light fixtures, this includes changing light bulbs and repairing failing or defective fixtures in both general access

areas and in the premises leased to tenants. The actual repair work or maintenance work is carried out by maintenance crews, who may be employed by the property owner, or who may be employed by an outside company that has a contract for performing maintenance work. Either way, in my years of experience, the process of maintaining fixtures—whether light fixtures or other fixtures in a building—has always been the same.

4. Repairs of lighting fixtures or other building fixtures were always done as the need for the repair arose, if the parts for making the repair were available. For example, if a tenant on a particular floor of a building reported that a light fixture had failed, the report would be received by the operations manager. The operations manager would pass the report on to the maintenance crew responsible for making repairs in that building. At the next available opportunity, when the crew was not performing other scheduled duties, the maintenance crew would visit the tenant, equipped with a cart filled with a number of replacement parts and bulbs. The cart would be loaded with what the maintenance crew considered to be the usual parts or bulbs that needed replacement in the building. The maintenance crew would not check the building records in order to ascertain exactly what part or bulb needed replacing. They would simply take the maintenance cart to the tenant's location. If they had the appropriate replacement part, then the part would be replaced. If they did not, then they would go to the maintenance supply room to look for the appropriate part, then return to the tenant's location and make the repair; if the part was not available from the supply room, then the part would have to be ordered. In that case, the maintenance crew would have made two trips to the tenant's location, and not accomplished a repair, which is very inefficient.

5. In the meantime, if requests for repairs or maintenance were received from other floors or locations in the building, those requests might or might not have been dealt with by the same maintenance crew as it was visiting the first tenant. Therefore, it was not unusual for the maintenance crew to return from a visit to one tenant's location, to discover that there was another repair to be made in the same general area. In that case, yet another trip would have to be made to visit another tenant.

6. Whenever a request for fixture repair was reported, the fixture that was in need of repair would be identified in whatever manner the person reporting the repair chose to use, which normally means a visual identification of the bulb with respect to certain landmarks in the building. For example, a tenant or security guard would describe that a failed fixture was located at the entrance of a particular suite on the tenth floor. No one would identify fixtures by a labelling or numbering system, or using a bar code label. The maintenance crew servicing a request would have to rely on the verbal description provided by person reporting the repair, and did not have any map or list of fixtures that could be used to correlate a label or number to a particular fixture.

7. I was first introduced to Mr. Jeffery's fixture management system in 2002. When I learned of his system, I recognized it as a substantial improvement over the previous methods of fixture repair, described above, that were used before his invention was introduced.

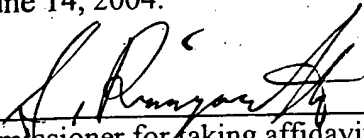
8. I have also been asked whether the following description of the method of repairing fixtures, before the introduction of Mr. Jeffery's is accurate:

"The manual method of repairing fixtures requires two trips: first the inspector who circles the fixture to be serviced on the plant floor plan, and second the maintenance person who repairs the fixture following the marked-up floor plan as the repair task route."

9. This is not correct. Before Mr. Jeffery's invention, no "inspector" would circle a fixture's location on a floor plan, and no maintenance person would follow a marked-up floor plan as a repair task route. No one prepared a repair task route at all. At no time before learning of Mr. Jeffery's invention had I ever heard of any maintenance crew or property management office that maintained or compiled any sort of route map to be followed by a maintenance crew, based on the requests for repairs received by property management. As I described above, if a maintenance crew had more than one repair to make, it would make separate visits to each tenant needing a repair.

10. I have been asked to affirm this affidavit in support of Mr. Jeffery's application for a Canadian patent, and for no improper purpose.

AFFIRMED BEFORE ME at the City of Toronto, in the Province of Ontario, on June 14, 2004.

  
Commissioner for taking affidavits

  
GEORGES CORBEIL

SANGEETHA PUNNIYAMOORTHY,  
a Commissioner, etc., Province of Ontario,  
while a student-at-law.  
Expires September 17, 2006.



IN THE CANADIAN PATENT OFFICE

Application No.: 2,307,153  
Title: LIGHT FIXTURE MANAGEMENT SYSTEM  
Applicant: JEFFERY, Clark R.  
Filed: April 28, 2000

**AFFIDAVIT OF JOHN CAPUTI**  
(affirmed June 4, 2004)

I, John Caputi, of the Town of Caledon, in the Regional Municipality of Peel,  
AFFIRM THAT:

1. I am the Operations Manager of UNICCO Service Company, Lighting Services Division, a position I have held since April 14, 2003. My responsibilities as Operations Manager, include the maintenance of fixtures and equipment at various customers locations i.e. Sears Canada, CIBC Branches, etc. In addition to my position at Unicco Service Company, Lighting Services Division, I have worked in the fixture repair and maintenance for 28 years, 26 years with Osram Sylvania Lighting Services Division in various capacity, the last 7 years as the Director of the Lighting Services Division. As such, I have personal knowledge of the facts to which I hereinafter depose, except where I indicate that my knowledge is based on information and belief, in which case I have indicated the source of my knowledge.

2. I have been asked by Mr. Clark Jeffery, who I understand is the named inventor in Canadian Patent Application No. 2,307,153, to discuss my knowledge and experience as it relates to the methods used to maintain and repair building fixtures.

3. The role of a lighting maintenance technician in a commercial building is to carry out repairs to fixtures, as well as perform general maintenance tasks such as fixture cleaning. The fixtures that would be maintained and repaired by a repair crew include light fixtures, and the responsibilities associated with light fixtures include

changing light bulbs and tubes, and repairing failing or defective fixtures throughout the building.

4. I was first introduced to Mr. Jeffery's fixture management system in 2000. I have found that his fixture management system has created a more efficient system for effecting repairs, compared to what was done previously.

5. Previously, fixture maintenance and repair was conducted in an unorganized manner. Repairs would be done as the need arose, and as inventory for performing repairs or maintenance was available. For example, if a request for a light bulb change was received from a tenant on the fifth floor of the building, the request would be received by the property manager, who would pass it on as a work order to the maintenance crew or individual. At the next available opportunity, when the crew was not performing other scheduled duties, the maintenance crew would visit the fifth floor tenant, equipped with a cart filled with a number of replacement parts and bulbs. The cart would be loaded with "standard" equipment for that building, that the maintenance crew considered were the usual parts or bulbs that needed replacement in the building. The maintenance crew would not check the building records in order to ascertain exactly what part or bulb needed replacing. They would simply take the maintenance cart to the fifth floor. If they had the appropriate replacement bulb or ballast, then the bulb/ballast would be replaced. If they did not, then they would go to the maintenance supply room to look for the appropriate bulb/ballast, then return to the fifth floor and change the bulb/ballast; if the it was not available from the supply room, then the part would have to be ordered. In that case, the maintenance crew would have made two trips (to the fifth floor, then back) and not accomplished a repair, which was very inefficient.

6. In the meantime, if requests for repairs or maintenance were received from other floors or locations in the building, those requests might or might not have been dealt with by the same maintenance crew as it was visiting the fifth floor. It was common for a maintenance crew to return from one trip to a given tenant's premises, only to learn that there was another repair to be made for a neighbouring tenant.

7. Also, whenever maintenance crews, tenants, or building employees had to identify a fixture in need of repair, the identification was always done in a visual manner. The person identifying a light fixture in need of repair, for example, would describe that a bulb was burned out on the fifth floor of the building, in the tenant's office on the north side at the end of a corridor. No one used any labelling or numbering system, let alone a bar code label, to identify fixtures in need of repair. The maintenance crew servicing a request would have to rely on the verbal description provided by the tenant or other person, and did not have any map or list of fixtures that could be used to correlate a label or number to a particular fixture.

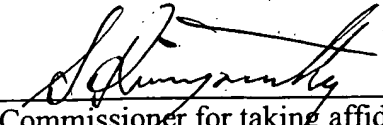
8. I have also been asked whether the following description of the method of repairing fixtures, before the introduction of Mr. Jeffery's system, is accurate:

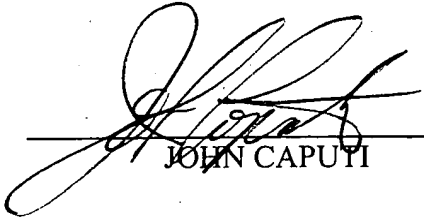
"The manual method of repairing fixtures requires two trips: first the inspector who circles the fixture to be serviced on the plant floor plan, and second the maintenance person who repairs the fixture following the marked-up floor plan as the repair task route."

9. In my experience, I have never seen an "inspector" use a floor plan to indicate the location of a fixture in need of repair. A person might call the property management office on the telephone or via two-way radio to report a repair verbally; it would be written down on a work order and transmitted to the maintenance crew. And as I described above, the maintenance crew would not follow a marked-up floor plan; instead, the crew would simply go to the location indicated in the work order and if they had the appropriate equipment, they would make the repair. At no time before I was introduced to Mr. Jeffery's system, did I know of any maintenance crew or property management office that maintained or compiled any sort of route map to be followed by a maintenance crew, based on the requests for repairs received by property management.

10. I have been asked to affirm this affidavit in support of Mr. Jeffery's application for a Canadian patent, and for no improper purpose.

AFFIRMED BEFORE ME at the City of Toronto, in the Province of Ontario, on June 4, 2004.

  
Commissioner for taking affidavits

  
JOHN CAPUTI

SANGEETHA PUNNIYAMOORTHY,  
a Commissioner, etc., Province of Ontario,  
while a student-at-law.  
Expires September 17, 2008.

**IN THE CANADIAN PATENT OFFICE**

Application No.: 2,307,153  
Title: LIGHT FIXTURE MANAGEMENT SYSTEM  
Applicant: JEFFERY, Clark R.  
Filed: April 28, 2000

**AFFIDAVIT OF GRANT CULLY  
(affirmed June 1, 2004)**

I, Grant Cully, of the City of Oakville, in the Regional Municipality of Halton, AFFIRM THAT:

1. I am the Maintenance Manager for O & Y Enterprise, located at Canada's tallest Building, the 72-Floor Commercial Tower at First Canadian Place in Toronto, a position I have held since 1996. My responsibility as Maintenance Manager includes overseeing the overall maintenance of equipment, including light fixtures at First Canadian Place. As such, I have personal knowledge of the facts to which I hereinafter depose, except where I indicate that my knowledge is based on information and belief.
2. I have been asked by Mr. Clark Jeffery, whom I understand is the named inventor in Canadian Patent Application No. 2,307,153, to discuss the role of our buildings' maintenance manager, and my knowledge and experience as it relates to the methods used to maintain and repair building systems and equipment.
3. Part of the role of a maintenance manager in a commercial building is to ensure that the structure, equipment, and fixtures of the building are maintained in a state of good repair. In the context of light fixtures, this includes changing light bulbs and repairing failing or defective fixtures in both general access areas and in the premises leased to tenants. Maintenance personnel carry out the actual repair work or maintenance work.
4. I was first introduced to Mr. Jeffery's fixture management system in 2000. When I learned of his system, I recognized it as a substantial improvement over the previous methods of

fixture repair that were used before his invention was introduced, and the potential for such a system.

5. Prior to my introduction to Mr. Jeffery's system, all the fixture maintenance and repair I had ever supervised or observed had always been conducted on an *ad hoc* basis. That is, repairs would be done as the need arose, and as inventory for performing repairs or maintenance was available. For example, if a request that a light out was received from a tenant, maintenance personnel would simply replace light bulbs. The maintenance crew would not check the building records in order to ascertain exactly what part or bulb were needed to replace or if the exact same repairs had been performed in the recent past. Had the information been available, a simple check to see if replacement of a particular bulb was a recurring problem and would indicate whether to look into the possibility of other deficiencies in the light fixture, such as a ballast nearing failure. In that case, the maintenance crew would have saved a trip and accomplished the repair, which would have saved time and been very efficient.

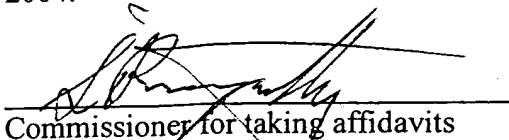
6. Also, in previous practice, when maintenance crews, tenants, or building employees had to identify a fixture in need of repair, the identification was always done in a visual manner. The person identifying a light fixture in need of repair, for example, would describe that a bulb was burned out on a given floor of the building, in the tenant's office on the right-hand side at the end of a corridor. No one used any labelling or numbering system, let alone a bar code label, to identify fixtures in need of repair. The maintenance crew servicing a request would have to rely on the verbal description provided by the tenant or other person, and did not have any map or list of fixtures that could be used to correlate a label or number to a particular fixture.

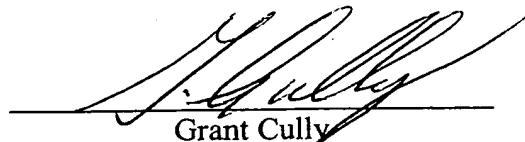
7. With the use of Mr. Jeffery's light fixture management system it is possible to trend the light fixture repairs being done anywhere in the building, thus allowing recognition of problem areas. As an example a report may indicate that replacement of light bulbs have escalated over the last few months in a certain area and it may be time to look into total relamping of that particular area of the building. Another useful aspect of Mr. Jeffery's fixture management system is the ability to track whether a fixture is in use or in storage, thus allowing for real time inventory management. This has the possibility of being extended to other areas of our maintenance program such as energy conservation.

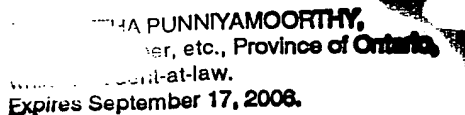
8. Before Mr. Jeffery's invention, no "inspector" (whether a tenant, security guard, or building employee) would circle a fixture's location on a floor plan. A person might call the building service centre on the telephone or via two-way radio to report a repair verbally; it would be written down on a work order and transmitted to the maintenance crew. And as I described above, the maintenance crew would not follow a marked-up floor plan; rather, the crew would simply go to the location indicated in the work order and if they had the appropriate equipment, they would make the repair. At no time prior to the introduction of Mr. Jeffery's light fixture management system did I know of any maintenance crew or property management office that maintained or compiled any sort of route map to be followed by a maintenance crew, based on the requests for repairs received by property management.

9. I have been asked to affirm this affidavit in support of Mr. Jeffery's application for a Canadian patent, and for no improper purpose.

AFFIRMED BEFORE ME at the City  
of Toronto, in the Regional  
Municipality of York, on June 1,  
2004.

  
Commissioner for taking affidavits

  
Grant Cully

  
ANITHA PUNNIYAMOORTHY,  
Solicitor, etc., Province of Ontario,  
Solicitor-at-law.  
Expires September 17, 2008.

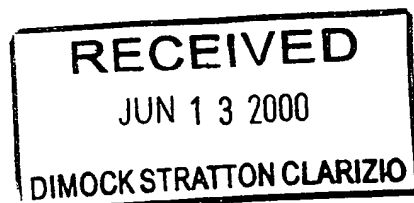


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Date : 2000/06/07

## FILING CERTIFICATE

Application No. : 2,307,153 Filing Date : 2000/04/28  
Expected Laid-Open Date : 2001/10/28 Your Reference : 976-2/MBE  
Title of Invention : LIGHT FIXTURE MANAGEMENT SYSTEM  
Applicant(s) : NORTHERN LIGHT TECHNOLOGY GROUP INC.  
Inventor(s) : JEFFERY, R. CLARK

ENTERED JUN 23 2000

### Special Notice

You are reminded that annual fees to maintain your application are needed for each one-year period between the 2nd and 20th anniversaries and must be paid on or before each anniversary. Failure to pay within the prescribed time limit will lead to abandonment of your application.

Commissioner of Patents

Canada

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# *Petition for Grant of a Patent*

1. The applicant, NORTHERN LIGHT TECHNOLOGY GROUP INC.  
whose complete address is: 14 Indell Lane  
Brampton, Ontario, Canada L6T 3Y3

requests the grant of a patent for an invention, entitled:

## LIGHT FIXTURE MANAGEMENT SYSTEM

which is described and claimed in the accompanying specification.

2. The inventor is: JEFFERY, R., Clark  
whose complete address is: 980 Finley Avenue  
Ajax, Ontario, Canada L1S 3V2

and the applicant owns in Canada the whole interest in the invention.

3. The applicant appoints Dimock Stratton Clarizio, whose complete address in Canada is Suite 3202, 20 Queen Street West, Box 102, Toronto, Ontario, Canada M5H 3R3, telephone (416) 971-7202, facsimile (416) 971-6638, as the applicant's representative in Canada, pursuant to section 29 of the *Patent Act*.

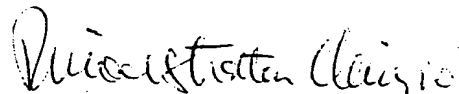
4. The applicant appoints Dimock Stratton Clarizio, whose complete address in Canada is Suite 3202, 20 Queen Street West, Box 102, Toronto, Ontario, Canada M5H 3R3, telephone (416) 971-7202, facsimile (416) 971-6638, as the applicant's patent agent.

5. The applicant believes that the applicant is entitled to claim status as a "small entity" as defined under section 2 of the *Patent Rules*.

6. The applicant requests that Figure No. 1/1a of the drawings accompany the abstract when it is open to public inspection under Section 10 of the *Patent Act* or published.

**SIGNED** at Toronto, Ontario, Canada, on April 28, 2000.

DIMOCK STRATTON CLARIZIO



Agent on behalf of Applicant

Petition000428